RIPL-2: Reference Input Parameter Library for Nuclear Reaction Model Calculation

Mike Herman

International Atomic Energy Agency and Brookhaven National Laboratory

RIPL-2 is a comprehensive library of input parameters for theoretical modeling of nuclear reactions developed under the IAEA Coordinated Research Project and released in May 2003. It contains extensive compilation of physical quantities that are necessary for calculation of nuclear reactions including nuclear masses, deformations, level schemes, optical model potentials, level densities, gamma strength functions, and fission barriers. Contents of the RIPL-2 library, data testing and their retrieval from the IAEA Web site will be reviewed. Limitations of the current library and future improvements (RIPL-3) will be discussed.

Email: mwherman@bnl.gov